



**Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Classification Attainment Report**

Station Information

Station Number: S-486	River Basin:	Kennebec	
Waterbody:	East Branch Wesserunsett Stream - Station 486	HUC8 Name:	Lower Kennebec
Town:	Athens	Latitude:	44 57 24.29 N
Directions:	30 METERS UPSTREAM OF RTE. 150, PARK ACROSS THE STREET AT AUSTIN ROAD (WE USED TO COLLECT ALGAE AT THE REST AREA FURTHER	Longitude:	69 38 39.25 W
		Stream Order:	3

Sample Information

Log Number: 2757	Type of Sample:	ROCK BAG	Date Deployed:	7/24/2019	
Subsample Factor:	X1	Replicates:	3	Date Retrieved:	8/22/2019

Classification Attainment

Statutory Class: B	Final Determination: A	Date:	1/4/2021
Model Result with P \geq 0.6:	A	Reason for Determination:	Model
Date Last Calculated:	12/23/2020	Comments:	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.85	Class C	0.00
Class B	0.14	NA	0.00
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	1.00	Class A	1.00
Class C or Non-Attainment	0.00	Class B or C or Non-Attainment	0.00

Model Variables

01 Total Mean Abundance	322.67	18 Relative Abundance Ephemeroptera	0.10
02 Generic Richness	59.00	19 EPT Generic Richness	29.00
03 Plecoptera Mean Abundance	14.67	21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	31.33	23 Relative Generic Richness- Plecoptera	0.08
05 Shannon-Wiener Generic Diversity	3.97	25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>	16.67
06 Hilsenhoff Biotic Index	3.99	26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>	11.60
07 Relative Abundance - Chironomidae	0.18	28 EP Generic Richness/14	1.29
08 Relative Generic Richness Diptera	0.31	30 Presence of Class A Indicator Taxa/7	0.71
09 <i>Hydropsyche</i> Abundance	111.67		
11 <i>Cheumatopsyche</i> Abundance	6.33		
12 EPT Generic Richness/ Diptera Generic Richness	1.61		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	11.33		
16 Tanypodinae Mean Abundance (Family Functional Group)	1.67		
17 Chironomini Abundance (Family Functional Group)	11.00		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Hydropsyche</i>	34.61
2	<i>Brachycentrus</i>	10.74
3	<i>Rheotanytarsus</i>	5.37
4	<i>Neureclipsis</i>	5.27
5	<i>Tvetenia</i>	4.75



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Station Number: S-486 Town: Athens Date Deployed: 7/24/2019
Log Number: 2757 Waterbody: East Branch Wesserunsett Stream - Station 486 Date Retrieved: 8/22/2019

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: MICHAEL COLE

Waterbody Information - Deployment

Temperature: 20 deg C
Dissolved Oxygen: 9.9 mg/l
Dissolved Oxygen Saturation: 108.7 %
Specific Conductance: 105.7 uS/cm
Velocity: 30.5 cm/s
pH: 8.25
Wetted Width: 9.5 m
Bankfull Width: 15 m
Depth: 40 cm

Waterbody Information - Retrieval

Temperature: 19.9 deg C
Dissolved Oxygen: 9.45 mg/l
Dissolved Oxygen Saturation: 104.1 %
Specific Conductance: 82.8 uS/cm
Velocity: 36.6 cm/s
pH: 7.87
Wetted Width: 11.6 m
Bankfull Width: 15 m
Depth: 51 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Upland Conifer	Partly Open	Rolling	
Upland Hardwood			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Logging	Above Road Crossing	Bedrock	15 %
Nps Pollution		Boulder	70 %
		Gravel	5 %
		Rubble/Cobble	10 %

Landcover Summary - 2004 Data

Total Area (ac)	11673	High Int. Dev. %	0.0	Water %	1.4	Non-vegetated %	0.0
		Med Int. Dev. %	0.1	Wetland %	2.1	Tilled Agriculture %	1.2
		Low Int. Dev. %	3.0	Upland Woody %	91.7	Grassland %	0.6
		Development %	3.0	Natural %	93.8	Human Altered %	4.8
						Impervious %	0.9

Sample Comments

FISH PRESENT.
HIGH WATER LEVEL.



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Aquatic Life Taxonomic Inventory Report**

Station Number: S-486

Waterbody: East Branch Wesserunsett Stream - Station 4 Town: Athens

Log Number: 2757

Subsample Factor: X1

Replicates: 3

Calculated: 12/23/2020

Taxon	Maine Taxonomic Code	Count		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		(Mean of Samplers)				Actual	Adjusted
		Actual	Adjusted				
<i>Prostoma</i>	04010101001	0.67	0.67		--	0.2	0.2
<i>Pteronarcys</i>	09020205023		3.00	0	SH		0.9
<i>Pteronarcys biloba</i>	09020205023061	3.00			--	0.9	
Perlodidae	09020207	0.33	0.33		--	0.1	0.1
<i>Acroneuria</i>	09020209042	0.33	6.00	0	PR	0.1	1.9
<i>Acroneuria abnormis</i>	09020209042121	1.00		0	PR	0.3	
<i>Acroneuria lycorias</i>	09020209042125	4.67			--	1.4	
<i>Paragnetina</i>	09020209049	4.33	4.67	1	PR	1.3	1.4
<i>Paragnetina immarginata</i>	09020209049149	0.33			--	0.1	
<i>Aagnetina</i>	09020209050		0.67	2	PR		0.2
<i>Aagnetina capitata</i>	09020209050152	0.67		2	PR	0.2	
<i>Boyeria</i>	09020301004		0.67	2	PR		0.2
<i>Boyeria grafiana</i>	09020301004011	0.67			--	0.2	
Gomphidae	09020302	0.67	0.67		--	0.2	0.2
Corduliidae	09020305	0.33	0.33		--	0.1	0.1
<i>Baetis</i>	09020401001		7.00	4	CG		2.2
<i>Baetis flavistriga</i>	09020401001004	0.33			--	0.1	
<i>Baetis intercalaris</i>	09020401001008	6.67			--	2.1	
<i>Acerpenna</i>	09020401007		3.33	5	CG		1.0
<i>Acerpenna macdunnoughi</i>	09020401007001	3.33			--	1.0	
<i>Plauditus</i>	09020401012	0.33	0.33		CG	0.1	0.1
<i>Dipheter</i>	09020401013		1.00		--		0.3
<i>Dipheter hageni</i>	09020401013001	1.00			--	0.3	
Heptageniidae	09020402	0.33			--	0.1	
<i>Epeorus</i>	09020402009	0.33	0.35	0	SC	0.1	0.1
<i>Leucrocuta</i>	09020402011	0.67	0.70	1	SC	0.2	0.2
<i>Stenacron</i>	09020402014	0.33	0.35	7	SC	0.1	0.1
<i>Maccaffertium</i>	09020402015	4.33	5.60	4	SC	1.3	1.7
<i>Maccaffertium vicarium</i>	09020402015055	1.00			--	0.3	
<i>Isonychia</i>	09020404018		1.67	2	CF		0.5
<i>Isonychia bicolor</i>	09020404018059	1.67			--	0.5	
<i>Ephemerella</i>	09020410035	4.00	4.00	1	CG	1.2	1.2
<i>Eurylophella</i>	09020410036		0.33	3	CG		0.1
<i>Eurylophella funeralis</i>	09020410036115	0.33			SH	0.1	
<i>Serratella</i>	09020410037		0.67	2	CG		0.2
<i>Serratella deficiens (Teloganopsis deficiens)</i>	09020410037121	0.33			--	0.1	
<i>Serratella serratoides</i>	09020410037124	0.33			--	0.1	



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Replicates: 3

Calculated: 12/23/2020

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Tricorythodes</i>	09020411038	6.00	6.00	4	CG	1.9	1.9
<i>Neureclipsis</i>	09020603008	17.00	17.00	7	CF	5.3	5.3
<i>Nyctiophylax</i>	09020603009	0.33	0.33	5	PR	0.1	0.1
<i>Cheumatopsyche</i>	09020604015	6.33	6.33	5	CF	2.0	2.0
<i>Hydropsyche</i>	09020604016	86.33	111.67	4	CF	26.8	34.6
<i>Hydropsyche bronta</i>	09020604016029	3.67			--	1.1	
<i>Hydropsyche morosa</i>	09020604016030	15.00			--	4.6	
<i>Hydropsyche sparna</i>	09020604016032	6.67			--	2.1	
<i>Rhyacophila</i>	09020605019		0.33	2	PR		0.1
<i>Rhyacophila mainensis</i>	09020605019069	0.33			--	0.1	
<i>Hydroptila</i>	09020607026	0.33	0.33	6	P	0.1	0.1
<i>Brachycentrus</i>	09020609043		34.67	0	CF		10.7
<i>Brachycentrus appalachia</i>	09020609043096	34.67			--	10.7	
<i>Lepidostoma</i>	09020611064	1.00	1.00	1	SH	0.3	0.3
<i>Helicopsyche</i>	09020616070		2.67	3	SC		0.8
<i>Helicopsyche borealis</i>	09020616070137	2.67			--	0.8	
<i>Mystacides</i>	09020618075		2.67	4	CG		0.8
<i>Mystacides sepulchralis</i>	09020618075147	2.67			--	0.8	
<i>Oecetis</i>	09020618078	5.67	6.33	8	PR	1.8	2.0
<i>Oecetis avara</i>	09020618078153	0.67			--	0.2	
<i>Nigronia</i>	09020701003		0.33	0	PR		0.1
<i>Nigronia serricornis</i>	09020701003003	0.33			--	0.1	
Chironomidae	09021011				--		
<i>Ablabesmyia</i>	09021011001	0.33	0.33	8	PR	0.1	0.1
<i>Labrundinia</i>	09021011008	0.33	0.33	7	PR	0.1	0.1
<i>Thienemannimyia</i>	09021011020		1.00	3	PR		0.3
<i>Thienemannimyia group</i>	09021011020041	1.00			--	0.3	
<i>Cricotopus</i>	09021011037	3.33	9.33	7	SH	1.0	2.9
<i>Cricotopus bicinctus</i>	09021011037057	6.00			--	1.9	
<i>Nanocladius</i>	09021011049	0.33	0.33	3	CG	0.1	0.1
<i>Orthocladius</i>	09021011050		0.67	6	CG		0.2
<i>Orthocladius dubitatus</i>	09021011050103	0.67			--	0.2	
<i>Rheocricotopus</i>	09021011057	0.67	0.67	6	CG	0.2	0.2
<i>Thienemanniella</i>	09021011062	0.33	0.33	6	CG	0.1	0.1
<i>Tvetenia</i>	09021011065		15.33	5	CG		4.8
<i>Tvetenia vitracies</i>	09021011065113	15.33			--	4.8	
<i>Paratanytarsus</i>	09021011071	0.33	0.33	6	--	0.1	0.1
<i>Rheotanytarsus</i>	09021011072		17.33	6	CF		5.4



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<i>Rheotanytarsus exiguus group</i>	09021011072127	16.67			CF	5.2	
<i>Rheotanytarsus pellucidus</i>	09021011072128	0.67			CF	0.2	
<i>Tanytarsus</i>	09021011076	0.67	0.67	6	CF	0.2	0.2
<i>Microtendipes</i>	09021011094		1.67	6	CF		0.5
<i>Microtendipes rydalensis group</i>	09021011094168	1.67			--	0.5	
<i>Nilothauma</i>	09021011095	0.33	0.33	2	--	0.1	0.1
<i>Polypedilum</i>	09021011102		9.00	6	SH		2.8
<i>Polypedilum aviceps</i>	09021011102181	9.00			--	2.8	
<i>Atherix</i>	09021015055	0.33	0.33	2	PR	0.1	0.1
<i>Hemerodromia</i>	09021016057	1.33	1.33	3	PR	0.4	0.4
<i>Roederiodes</i>	09021016058	1.67	1.67	3	PR	0.5	0.5
<i>Psephenus</i>	09021108058		2.67	4	SC		0.8
<i>Psephenus herricki</i>	09021108058028	2.67			--	0.8	
<i>Dubiraphia</i>	09021113064	12.67	12.67	6	--	3.9	3.9
<i>Macronychus</i>	09021113065		1.33	4	--		0.4
<i>Macronychus glabratus</i>	09021113065040	1.33			--	0.4	
<i>Promoresia</i>	09021113069		10.00		--		3.1
<i>Promoresia elegans</i>	09021113069051	7.33			--	2.3	
<i>Promoresia tardella</i>	09021113069052	2.67			--	0.8	
<i>Stenelmis</i>	09021113070	0.67	0.67	5	SC	0.2	0.2
<i>Physella</i>	10010202027	1.00	1.00		SC	0.3	0.3
<i>Ferrissia</i>	10010204035		1.33		SC		0.4
<i>Ferrissia rivularis</i>	10010204035066	1.33			--	0.4	